

February 17, 2010

Mr. Joseph LeMay
MA Superfund Section
Remedial Project Manager
USEPA - New England
Five Post Office Square, Suite 100
Boston, MA 02109-3912

RE: Proposed Analyte List for VIA Work Plan
Wells G&H Superfund Site

Dear Joe:

We have evaluated the additional analytes that EPA listed for consideration in Comment 9 of its December 18, 2009 comments (EPA Comment Letter) on the October 9, 2009 draft UniFirst and Grace Vapor Intrusion Assessment (VIA) Work Plan. More specifically, we reviewed the history of volatile organic compound (VOC) detections in groundwater samples collected on the UniFirst and Grace properties in our database and, to the extent possible, compared that information to the analyte data provided by EPA via email on February 2, 2010. We also compared historical groundwater concentrations measured for each proposed analyte to the "Groundwater VI Screening Criteria" proposed in Comment 33 of the EPA Comment Letter. The screening criteria are being used here solely for purposes of selecting analytes for laboratory analysis of groundwater samples. In a separate document UniFirst and Grace will provide comments regarding the appropriateness of the EPA-derived screening criteria for the VIA.

Table 1 summarizes detections of VOCs in groundwater samples collected on the UniFirst and Grace properties. The table lists compounds, the groundwater screening criteria proposed by EPA for the VIA, maximum reported concentration, number of detections, number of wells where the compound was detected, the number of detections greater than the screening criteria, total number of samples, the number of wells samples and the rationale for selecting a compound for inclusion in the VIA analyte list. Our review of the water quality data considered the number of detections of a compound and compared the maximum detected concentration to the EPA proposed groundwater screening criteria. If a compound was detected only infrequently in samples from a well, or was not detected above the EPA proposed groundwater screening criterion, the compound was not recommended for analysis in the VIA. Table 2 is a revised list of analytes for the VI assessment.

Please contact Tim Cosgrave or Clayton Smith if you have any questions regarding the revised analyte list or would like to set up a conference call with your team to discuss the contents of this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "J. Bridge", written over a light purple rectangular background.

Jonathan R. Bridge
Principal Hydrogeologist

CC: C. Lewis
J. Coyne
D. Sullivan
C. Smith
R. Medler
L. Duff
J. Guswa
T. Cosgrave
W. Graham
G. Bibler
M. Moore

Table 1. Evaluation of Analyte List for VI Assessment

Compound	Groundwater VI Screening Criteria (ug/L)	Maximum Detection* (µg/L)	# Detections	# Locations with Detections	# Detections > Screening Criteria	# Samples	# of Locations Sampled	Add to 8260B Analyte List
1,1,2,2-Tetrachloroethane	3	1	1	1	0	1697	163	No: Only 1 detection, maximum detection less than screening criterion
1,1,2-Trichloroethane	4.11	42	2	2	2	1695	163	No: Only 2 detections
1,1-Dichloroethene	19	230	154	44	16	1713	163	Yes: Already proposed to be analyzed
1,2,4-Trimethylbenzene	2.4	3	2	2	1	344	110	No: Only 2 detections
1,2-Dibromoethane	0.36	11	1	1	1	344	110	Yes: Detection limit greater than screening criterion
1,2-Dichlorobenzene	260	41.2	12	10	0	819	134	No: Maximum detection less than screening criterion
1,2-Dichloropropane	2.12	12	1	1	1	1697	163	No: Only 1 detection
1,3,5-Trimethylbenzene	2.5	2	1	1	0	344	110	No: Only 1 detection, maximum detection less than screening criterion
1,3-Dichlorobenzene	No Value Available	6.51	1	1	0	819	134	No: Only 1 detection
1,4-Dichlorobenzene	2.25	18.6	1	1	1	818	134	No: Only 1 detection
1,4-Dioxane	No Value Available	Not Detected	0	0	0	211	56	No: No risk of vapor intrusion from groundwater
2-Butanone	44000	20000	55	31	0	1149	144	No: Maximum detection less than screening criterion
2-Hexanone	787	24	4	4	0	1165	141	No: Only 4 detections, maximum detection less than screening criterion
4-Methyl-2-Pentanone	1400	22	7	7	0	1198	146	No: Only 7, maximum detection less than screening criterion
Acetone	22000	13000	177	70	0	1199	148	No: Maximum detection less than screening criterion, common lab and sampling artifact
Benzene	1.36	13	17	13	16	1588	163	Yes: Detected in 17 samples, 16 samples greater than screening criterion
Bromodichloromethane	2.1	57.4	1	1	1	1697	163	No: Only 1 detection, maximum detection less than screening criterion
Bromoform	0.0083	3000	1	1	1	1697	163	Yes: detection limit greater than screening criterion
Bromomethane	2	1	2	2	0	1697	163	No: Only 2 detections, maximum detection less than screening criterion
Carbon disulfide	56	41	38	13	0	1166	141	No: Maximum detection less than screening criterion

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Compound	Groundwater VI Screening Criteria (ug/L)	Maximum Detection* (µg/L)	# Detections	# Locations with Detections	# Detections > Screening Criteria	# Samples	# of Locations Sampled	Add to 8260B Analyte List
Carbon tetrachloride	0.135	260	18	16	18	1699	163	Yes: Detection limit greater than screening criterion
Chlorobenzene	39	66	20	15	1	1705	163	No: Only 20 detections, only 1 detection greater than screening criterion
Chloroethane	2800	74	16	8	0	1697	163	No: Maximum detection less than screening criterion
Dibromochloromethane	3.2	0.6	1	1	0	1697	163	No: only 1 detection, maximum detection less than screening criterion
Ethylbenzene	3.04	7400	33	12	29	1596	163	Yes: Detected in 33 samples, 29 samples greater than screening criterion
Isopropylbenzene	0.84	0			0	344	110	Yes: Detection limit greater than screening criterion
Meta- & Para-Xylenes ¹	2200	450	16	10	0	500	106	Yes: Detected in 16 samples
Methylene chloride	58	1390	321	112	25	1702	163	Yes: Detected in 321 samples, 25 samples greater than screening criterion
Naphthalene	3.98	32000	6	6	2	430	132	Yes: Detected in 6 samples, 2 samples greater than the screening criterion
n-Propylbenzene	32	0.2	1	1	0	344	110	No: Only 1 detection, maximum detection less than screening criterion
Ortho-Xylene ¹	2200	260	11	7	0	520	114	Yes: Detected in 11 samples
Styrene	890	0.9	1	1	0	1167	141	No: Only 1 detection, maximum detection less than screening criterion
Tetrahydrofuran	No Value Available	18	10	10	0	271	71	No: Compound was contaminant in lab supplied diffusion bag samplers
Toluene	150	23400	382	63	42	1595	163	Yes: Detected in 382 samples from several wells
Trans-1,3-Dichloropropene	0.84	14	1	1	1	1531	163	Yes: Detection limit greater than screening criterion
Xylenes (total)	2200	3265	54	25	2	1019	154	Yes: Detected in 54 samples, 2 samples greater than screening criterion
*Value bold where maximum detection is greater than screening criteria.								
¹ Screening Criteria for Xylenes (total)								
NA - not applicable								

Table 2. Revised Analyte List for Vapor Intrusion Assessment

Compound
1,1,1-Trichloroethane
1,1-Dichloroethane
1,1-Dichloroethene
1,2-Dibromoethane
1,2-Dichloroethane
Benzene
Bromoform
Carbon tetrachloride
Chloroform
Cis-1,2-Dichloroethene
Ethylbenzene
Isopropylbenzene
Meta- & Para-Xylenes
Methylene chloride
Naphthalene
Ortho-Xylene
Tetrachloroethene
Toluene
Trans-1,2-Dichloroethene
Trans-1,3-Dichloropropene
Trichloroethene
Vinyl-chloride
Xylenes (total)